schools neglect their duties by thus omitting to teach the art of medicine in combination with what is exclusively and pompously called "science." Let the schools remember what every one of us general practitioners can tell them, that medicine means both science and art. I have here the prescription, dated April 14, 1906, which was given to a patient, who swallowed the stuff, by the professor of pharmacology and therapeutics in one of the great universities between the Atlantic and the Mississippi—very far from the Mississippi—which is a mixture of scientific and queer language, viz., "Bili-salol" what is bili-solol in the Pharmacopeia?-"0.25, dentur tales doses No. C, three to five pills after meals three times a day."

If there is so much proprietary medicine prescribed, and so much quackery, clear your own skirts, professors and doctors. The quacks and manufacturers smile at our unctuous words and unclean hands.

GENERAL ENTEROPTOSIS.*

By J. HENRY BARBAT, Ph. G., M. D., San Francisco.

My reason for bringing this subject before you is that it is being overlooked in a large proportion of cases, and thousands of women are leading a miserable existence, and suffering untold torture, because their disease has been improperly diagnosed, and therefore improperly treated. By the term "general enteroptosis" or Glenard's disease, or splanchnoptosis, we refer to a condition of the abdominal contents characterized by a relaxation and lengthening of the peritoneal supports, allowing the viscera to descend below their natural position, especially when the body is upright. While ptoses of the various organs had been recognized by various authors for many years previous, it is to Glenard that we must give credit for having first described, in 1885, the symptom-complex of this condition and devised means to ameliorate the misery of patients suffering from this disorder. His observations have been confirmed by all who have followed this line of work, and the importance of the subject can be understood when we appreciate the fact that from 10 to 25 per cent. of women applying to the gynecologist for treatment, are suffering from this dis-

Women are afflicted about ten times as often as men. Age has no bearing, except that it is uncommon to find a general enteroptosis in children, the kidney alone being displaced. No reference is made to congenital floating kidney. The etiologic factors may be divided as follows:

Hereditary and constitutional.

P. Mathes says that "enteroptosis is a constitutional and hereditary anomaly of the abdominal organs consisting of weakness and absence of vital energy in the whole body. The ptoses are due to insufficiency of the hypoplastic sunken thorax, and secondarily to the weakness of the abdominal walls. The enteroptotic habit is identical with the phthisical habit."

Developmental: In these cases we find girls

about the age of puberty assuming a new form of dress, necessitating corsets, which as a rule compress the waist; and with the weight of the clothes, causes a dragging on the viscera in the lower abdomen producing lengthening of the peritoneal supports.

Post partum and postoperative types: After parturition in women in whom the abdominal wall has been overdistended, we find that the recti muscles have been either separated, producing a diastasis. or else have been so stretched that involution has not taken place, allowing the lower portion of the abdomen to balloon out, inviting the descent of This is further increased if the pathe viscera. tient wears anything tight about the waist line. The same conditions will sometimes obtain after the removal of large abdominal tumors, especially if the patient's general health has been seriously compromised.

Traumatic: Sudden, violent or infrequent exercises, such as falls, jumping, lifting, dancing, horseback riding, coughing, etc., may start some of the organs, and once started the ptosis will gradually

become worse.

Nutritional: In which the abdominal wall has been weakened by long continued sickness, or in which the abdominal fat has been increased and diminished frequently.

Renal and pelvic congestion during menstruation, by increasing very materially the weight of the organs, has a tendency to produce ptoses.

The organs are involved in the following order of frequency: Right kidney, transverse stomach, left kidney, liver, spleen. The right kidney is found movable ten times as often as the left, and both kidneys in 15 per cent of all cases.

The right kidney is most often displaced; first, on account of the relation of the liver which is over it, and whose weight and size may vary at different times in the same individual.

Second, the ascending colon, at the hepatic flexure is more movable than the descending colon and splenic flexure, and is a factor in the production of nephroptosis.

Third, the right renal artery is longer than the left, and therefore allows more motion in the right kidney.

Fourth, the suprarenal vein in the right side empties into the vena cava inferior, while on the left side the suprarenal vein joins the renal, affording some support to the left kidney.

Fifth, the second and third portions of the duodenum press on the right kidney.

The transverse colon often begins its descent by being weighed down with fecal matters, which are not removed with sufficient frequency, and ptosis of the transverse colon is a factor in the production of nephroptosis and gastroptosis. Hepatoptosis, while an occasional symptom in general enteroptosis, is also often found alone, and in these cases is due as a rule to trauma. The same may be said of splenoptosis.

The majority of patients suffering from enteroptosis who apply to us for relief, are not aware of the fact that their abdominal organs are displaced and

^{*} Read at the Thirty-sixth Annual Meeting of the State Society, San Francisco, April, 1906.

usually come complaining of some disturbance of the digestive function associated with an ever constant fatigue and misery, which is relieved only by lying down. When we consider the number of organs involved, we can readily appreciate the fact that the symptoms will differ in different patients according to the causation and amount of displacement of each organ, and the effect on the adjacent organs, and also the effect of the whole malady on the nervous system.

In most cases we find the symptoms due to movable kidney attracting the attention of the patient, manifested by pain in the loin coming on after getting out of bed, and increasing materially on exertion, or the placing of any garment making pressure at the waist line.

Dietl's crises, usually begin with nausea and vomiting, followed by headache, pain in the hypochondrium radiating back to the loin, a sense of suffocation and an irresistible desire to remove the clothing and lie down. Intermittent hydronephrosis, by flexion or torsion of the ureter; icterus, by compression of the common duct; gastrectasis, by compression and angulation of the duodenum; hematuria, by angulation of the renal vein, and consequent acute congestion, are all symptoms referable to movable kidney.

Ptosis of the stomach and intestines produces indigestion with fermentation, dilatation of the stomach, gastralgia, retention of food due to lack of muscular tone of the stomach, constipation, autointoxication from the retained feces, mucomembranous colitis and neurasthenia.

Many authors consider that general enteroptosis and neurasthenia are synonymous; others maintain that they are entirely separate disorders. But my conclusions are, that a large number of people have neurasthenia whose abdominal organs are not displaced, and many people have enteroptosis without neurasthenia, and I find that if patients are allowed to suffer from the effects of general enteroptosis for a sufficient length of time, they will become victims of neurasthenia.

Associated with ptoses of the abdominal organs, we must consider the displacement of the pelvic and thoracic organs. The symptom complex of retrodeviations or prolapse of the uterus and enteroptosis are similar, and a ptosis of one organ should lead us to an examination of all the others. Downward displacement of the heart has been noted occasionally, due to traction on the diaphragm by the liver and stomach, and causing more or less serious disturbance of the circulation and heart action.

In the majority of cases the physical examination of enteroptotics is easy because of the relaxed abdominal walls, but occasionally we will find considerable fat still present and it will be rather difficult to feel a movable kidney or determine the position of the stomach and colon. It is best in all cases to go through a routine examination.

After removing the corset and loosening the waistbands the patient is placed in a semirecumbent position, so as to relax the abdominal muscles, and is made to take several deep breaths; the examining hands are placed, one on the loin and the other just

below the ribs in front. Just as the patient has taken a deep inspiration, the fingers are brought together as close up under the ribs as possible, and if the kidney is movable it will be prevented from receding and may be palpated and the amount of motility determined. Both kidneys should always be examined. I have had a few cases in which a movable kidney could not be dislodged on certain occasions; I believe this to be due to temporarily increased abdominal tension from gas, or to the patient's inability to properly relax the abdominal muscles.

The borders of the liver and spleen should be mapped out to determine their size. The position of the uterus is then ascertained. The patient is now placed in a standing or sitting position, and the organs again examined to determine the amount of displacement. The position of the heart is also noted. Then stand behind the patient and place the hands on the lower part of the abdomen, lift it up and hold it for a few seconds, and you will find that it immediately relieves the drag which these patients always feel. Let go suddenly, and they will appreciate the benefit which may be obtained by wearing a proper support.

The question which interests the patient is "can I be cured?" Unfortunately we cannot answer in the affirmative, but can give reasonable assurance that we can restore the individual to a fair condition of health and comfort, which will obtain just so long as our directions are accurately carried out. We should also warn all patients with enteroptosis that any carelessness in applying and wearing supporting appliances will be followed by crises which may be more or less serious, and which will ofttimes require several weeks rest in bed to remedy, or make an operation imperative. Medical treatment alone is of no more value in enteroptosis than it would be in the dislocation of any joint, and I find that most of the patients who come to me with this disease have had all manner of medicine for their stomach and bowels without the slightest permanent relief. It is of course essential in almost all cases to prescribe tonics and laxatives at first, to stir up the partially paralyzed organs, but if these measures are not supplemented by mechanical support of some kind, we will fail absolutely in relieving our patient's condition. Hydriatic measures, in combination with properly regulated exercises, especially in recent cases are to be strongly recommended, and will sometimes result in curing the patient by toning up the abdominal wall and thereby increasing the intra-abdominal pressure.

As a rule however we have to rely on mechanical methods to remedy mechanical diseases, and I will first take up operative proceedures and their application to ptoses of the abdominal viscera. I find as a rule, that when the organs are easily replacable and remain in position with the patient in the dorsal decubitus, no operation is necessary, but if they do not remain placed, operative measures are essential.

The organ to which most attention has been paid has been the right kidney, and in about 10% of cases it will be found necessary to fix it my means of one of the various operations of nephropexy. The

one which I prefer, and which I have been using for the past two years with perfect satisfaction, is as follows:

After making the usual oblique incision, the kidney is thoroughly loosened from all its attachments, especially on its anterior surface, which will often be found closely adherent to the peritoneum and ascending colon. If this separation is not accomplished properly, no benefit will result, and the patient will complain of more pain after than before the operation. Sufficient perirenal fat must be removed from the renal fossa to permit the kidney to come in direct contact with the quadratus lumborum. The kidney capsule is then incised below the level of the hilum, horizontally, and the lower portion detached from the kidney for about half an inch. Then by means of 4 or 5 interrupted formalin catgut sutures, the loosened edge of the capsule is attached to the upper part of the quadratus muscle, or in cases in which the kidney can be placed entirely above the twelfth rib, the skin incision is prolonged upward and the sutures are passed from below upward keeping the needle in close contact with the twelfth rib, and making it emerge between the eleventh and tewlfth ribs. The sutures must all be placed before tying, and it will be found that the kidney will be drawn up so that its lower pole projects only slightly below the lower border of the twelfth rib. By this method the kidney is supported in a cup or sling consisting of its own capsule, and if the peritoneal attachments have been properly separated, there is very little tension on the stitches, and very little pain following the The fasciæ and the skin are closed in the usual manner. No danger need be apprehended in passing the sutures between the eleventh and twelfth ribs, if the needle is made to hug the rib, because even if the pleura should come down lower than usual, it would not be punctured but would be pushed up when the needle emerged on the outside. At the same time I do not believe that any serious result would follow if the pleura were punctured at that point, because the tying of the sutures would effectually close the stitch wounds. If no nerve trunks have been cut or compressed by sutures, comparatively little pain will be experienced and the patient will be about in two weeks.

Operations on all other ptoses require opening of the abdominal cavity. In some cases we will find that a movable liver is causing traction on the stomach and duodenum and also kinking the common or cystic duct, and demands operative measures to fix it in proper position. I have found that occasionally there is a rotation rather than a uniform prolapse, the right lobe projecting down below the umbilicus to such an extent in one case that the lower border of the liver was almost vertical. It is a difficult matter to place sutures which will effectually support an organ as heavy as the liver, and the most satisfactory method which I have found is one devised by Ellsworth Elliott Jr., in which he sutures the round ligament of the liver to the parietal peritoneum, making a sling. This must be supplemented, in cases in which the organ is rotated, by some other fixative measure or no benefit will obtain, and I have in one case of rotated liver caused adhesions between the liver and the diaphram, by rubbing the surfaces with a gauze sponge and then inserting a few sutures to keep the liver in contact with the diaphram. I have on two occasions, in cases of traumatic hepatoptpsis, applied three very heavy catgut sutures directly through the liver substance and the abnominal parietes. The results in these cases have been very good, but there is room for better technic in hepatoptosis.

For gastrophtosis and coloptosis, the stomach and transverse colon have been sutured to the abdominal wall; the omemtum has been used as a sling for the stomach by sewing it to the abdominal parietes, but the results have been far from satis-When gastroptosis is associated with difactory. latation, gastroplication with posterior gastroenterostromy will unquestionably give the best results, and cases are reported in which relief was obtained only after both operations had been done. Wandering spleen has been treated, in the majority of cases where it has caused trouble, by extirpation, but I do not believe that this should be done unless the organ is diseased or very much enlarged, as it can be fixed to the abdominal wall by roughening the corresponding surfaces and using one or more heavy catgut sutures through the parenchyma of the organ and the abdominal wall.

Ptoses of the pelvic organs require operation more often than those of the abdominal cavity, on account of the impracticability of properly supporting them with mechanical devises. Retrodisplacements of the uterus with the accompanying ptosis of the adnexa, require as a rule an operative proceedure for their correction. Where feasible, shortening of the relaxed supports gives the most satisfactory result and I have a preference for intraabdominal shortening of the round ligaments in cases of retroflexion, supplemented by shortening of the sacrouterine ligaments in retroversion. Prolapsus uteri is best remedied by ventrofixation and colporrhaphy. When the relaxation of the abdominal walls is due to a diastasis of the recti muscles, it becomes imperative to correct the condition by operation. Any one or all of these fixative operations may be necessary; but it is rare that more than one of the abdominal organs will resist the correct support of the abdominal wall.

I make it an invariable rule to postpone operation, except on the pelvic organs, until a thorough trial has been given the abdominal supporter; then, if it is found that one or more organs resist this means of support, I advise operation. It is to the supporting corset that I especially desire to call your attention. Ever since the publication by Ernest A. Gallant of New York, of his excellent article on Glenard's disease, and his advocacy of correct corsets to remedy the condition, I have been working in the same direction, and with the help of my corset maker have succeeded in relieving a large number of enteroptotics.

In a small proportion of cases, especially if the disease has not been of long duration, the ordinary straight front corset reaching down to the pubes in front, will be found sufficient to support the abdominal contents; but in the majority of cases it

will be found necessary to have the corsets made to order, because if they do not fit accurately they will do more harm than good. I can not do better than to quote Dr. Gallant as to the method of measuring and fitting the supporting corset. "Before attempting to measure a woman for a corset, the intestinal tract should be thoroughly emptied by the administration of laxatives for several days, and immediately preceeded by urination. Having loosened all her clothing, and removed her corset, place the patient on a firm couch or table, head resting on a pillow, legs extended, and secure the following measurements: The dorsal position is absolutely essential. Tie a piece of rope or bandage around the body to mark the waist line. The measurements must be taken next the skin or outside the undervest. Draw the tape snugly, not tightly.

- 1. Circumference of chest under axillæ? inches.
- Circumference of bust over most prominent portion of breasts? inches.
 - 3. Circumference at waist line? inches.
- Circumference of hips at level of anterior superior spines? inches.
- 5. Circumference of hips over great trochanters? inches.
 - 6. Length, waist line to iliac crest? inches.
- Length, waist line to top of corset at height patient desires? inches.
 - 8. Length waist line to auxiliary fold? inches.
- o. Length waist line to top of symphysis pubis, to median line? inches.
- 10. Distance between anterior superior spines? inches.
- 11. Breasts are small, medium, large, flat, rounded, pendulous?
- 12. Height feet, inches. Weight, lbs. Normal weight, lbs?
- 13. Right kidney descends inches; is replacable under ribs?
- 14. Left kidney descends inches, is replacable?
- 15. Greater curvature of stomach above, on level with or below umbilicus?
- 16. Lesser curvature can be defined inches below ensiform?
- 17. Appendix palpable, enlarged, recurrent attacks, last attack? Sensitive at present time?
- 18. Any abnormalities or dislocations of other organs?

Lacing and putting on corset.—To support the viscera in the diaphragmatic portion of the abdominal cavity, where they have gravitated owing to the semi-opisthotonos posture assumed by the patient, the corset laces must be put in as follows: Beginning with the upper holes, lace down to the sixth from the bottom, then insert a second lace from that point down to the lowest holes, leaving the back open five or six inches. Wrap the corset around the waist, lie down upon the bed or couch, pull the corset well down over the hips, draw up the knees, raise the hips well up from the bed, and fasten the corset from the lowest hook upward. While in this posture, draw on the lower strings, closing the corset as snugly as possible before sitting up; then adjust the upper lace, bringing the upper part of the corset together to a comfortable degree, but never closer than four inches at the

The wearer will find that the wider open the corset is at the top, the more comfort she will experience in breathing and after eating'

It has been found impracticable to adapt one type of corset to all types of patients, and we have corsets which have besides the lacing at the back, lacing at the sides; and others which have front lacing. I have found, however, that it is almost impossible to adapt any of these types of corset to very short and very thin patients. The short distance between the lower border of the ribs and the spmphysis pubis necessitates short front steels, which if sufficiently powerful to support the viscera, cause great distress, especially when sitting down. In order to overcome this difficulty I have devised a supporting aluminum pad, attached to the end of a truss like steel spring, which is fastened on the otuside of the corset, the front springs of which are softer and which does not have to be laced so tightly. The ordinary truss steel is unsatisfactory, because when it is bent to fit the body, the lower border projects beyond the upper, and will cut the dress unless heavily padded, which is very undesirable.

The less unpleasant we make our remedies, the more apt are our patients to take them, and I have found that the average patient will wear a supporting corset more faithfully than she will an abdominal belt, because it does not involve the placing of an extra garment, and is merely a different type of something to which she has become accustomed. Abdominal bandages and belts, in order to maintain their position, must have under straps which are at best unpleasant, uncomfortable and unclean; but we will find a few patients who cannot wear any form of corset, and in these we must resort

to belts or plaster strapping.

When neurasthenia is coincident with enteroptosis, a rest cure is often in order before putting on a corset, and in a large number of cases both diseases will be symptomatically cured by these means.

The following cases are illustrative of some of the types of enteroptosis with which he have to deal:

Mrs. G., aged 65 years, has had five children and has been well up to the past few years when she began to have trouble with her stomach and lost considerable flesh. I saw her for the first time during one of her stomach spells (Dietl's crises) and discovered a mass about the region of the pylorus which was very tender and somewhat movable, but on account of tenderness and nausea could not be accurately palpated. Examination of the stomach contents negative. Two days after first visit mass had disappeared, but the stomach was still much upset. Examination disclosed loose kidney, which could then be forced down as low as the pelvic brim. Patient was kept in bed two weeks and was then allowed to get up after having had a corset fitted. She gained 37 pounds in the next three months and had no further trouble until one year later, when I was again called and found her with a very severe crisis. She was obliged to remain five weeks in bed before she was able to get up. She had worn her corset faithfully for several months and then became careless, and would get out of bed and remain up for an hour or two before putting on the corset, allowing the kidney to descend and thus be injured rather

Mrs. R. T., aged 24 years, nullipara. Previous history good. I did an abdominal shortening of the round ligaments for retroflexion, one year previous

to her last illness, which began with pain in the right lumbar region, increasing on exertion or long standing. Examination disclosed the right kidney freely movable, but not tender, and easily replacable. I ordered a corset and she was perfectly comfortable until one day she attempted to life a patient; when she experienced a violent pain in the right lumbar region, and as the pain was repeated every time the slightest exertion was made, I decided to do a nephropexy. She has been wearing the corset since the operation, and has been perfectly free from pain. It is noteworthy that her father had suffered from movable kidney and I did a nephropexy on her

sister seven years previously, for a very painful movable kidney.

Mrs. A., aged 35 years. I was called first on account of pain in the back, and stomach trouble, which was supposed to be due to a chronic cough. I found a thin, tall, woman with an advanced chronic tuberculosis of the lungs of 8 years standing, and a freely movable right kidney which was easily replacable. The left kidney was movable also, but to a much less degree. She gave a history of getting up in the morning feeling very well, but after putting on her corsets and clothing she would begin to feel pain and misery in the abdomen and back. Every time that she took a carriage ride she would have to loosen her corset and waist bands before getting home, and would almost tear off her clothing to get into bed and obtain relief. I had her fitted with a supporting corset and she has had no pain in the stomach or back since.

Mrs. W., aged 45 years, 4 feet 4 inches high, had been complaining about her stomach for several years, and of late has suffered from retention of food in the stomach with production of gas to such an extent that she was afraid to eat, and was reduced to a mere skeleton, weighing 83 pounds. Examination disclosed a pendulous abdomen with a large hard mass on the right side, extending from the lower border of the right to one inch below the the lower border of the ribs to one inch below the umbilicus. This was thought to be a large movable kidney, which was pressing on the doudenum, causing partial obstruction at the pylorus and dilatation of the stomach, extending two inches below the umbilicus. There was slight icterus and chronic constipation. I advised a gastroenterostomy to relieve the dilated stomach and a nephropexy for the supposed movable kidney. On opening the abdomen the mass was found to be the liver, which was rotated to be the liver, which was rotated to be the liver. tated so that the right lobe was almost directly under the left, the gall bladder almost horizontal, and the pylorus angulated so as to be almost completely obstructed. I did a posterior gastroenterosotomy according to the method of Roux, using two Murphy buttons. I placed three stitches in the broad ligament to endeavor to draw the liver back into place, but it was impossible to restore it to its proper position. The kidney was not sufficiently movable to warrant interference. She has improved considerably, and has been wearing a supporting corset, which has given her great relief, and at the present time she weighs 105 pounds. I have at present about 100 patients who are wearing corsets for the support of prolapsed viscera, and practically all are enjoying fairly good health, and have been symptomatically cured of their enteroptosis.

SPASMODIC TORTICOLLIS.

By P. C. H. PAHL, M. D., Los Angeles.

By P. C. H. PAHL, B. S., M. D., Los Angeles.

Case I. *I. Woman, 29 years of age, of good family history, head and eyes frequently drawn to one side through spasm; formerly there was pain in the movements, but this, after some fifteen years, ceased. All attempts at a cure proved unsuccessful, no operation was performed. Patient was declared incurable.

Case II. *I. Son of former, 29 years of age. He noticed that his eyes got weak from looking side-

ways and soon his head commenced spasmodic movements similar to those of his mother. He had been treated by hydrotherapy, massage, electricity and gymnastics; no improvement followed. The division of the sterno-cleido-mastoid was proposed.

Case III. *1. Brother of preceding. At 34 years of age he had influenza and, soon after, he noticed that the head began to make spasmodic movements sideways; when his eyes turned sideways, he said that he then knew that he would have the same trouble as his mother and brother. The man is perfeetly healthy and is not much inconvenienced; he has not been treated.

Case IV. *5. A Hebrew drummer, 53 years of age, neurotic family history, noticed vague pains in the right arm; later he noticed pain in the left side of his neck, and soon the arm on that side was involved. Within a year of onset he fell from a car, striking on the right side of his chest and on his right elbow; within a month of the accident the pain on the left side of his neck became much more severe, prevented sleep and caused him much mental distress. To diminish these pains, he turned his head to the right; this alleviated him slightly out, in time, he made this movement to the right without noticing it and thus a tic (spasm) arose. This soon became more troublesome than the pain; his finger placed on the chin prevented the movement temporarily and afforded relief, but the general spastic condition soon became more violent, ceasing only during sleep. Sometimes by making a strong effort he could arrest the movement. Author mentions no treatment.

Csse V. Woman, 50 years of age, has always been nervous. She had at first a slight pain in the back of her head; this troubled her very much, and she noticed a crackling sound when she turned her head backward. In her mental trouble, she repeated this movement frequently until it gradually became automatic. Though the crackling sound is no longer heard, the movements have continued for several years. When her mind is occupied and she does not think of her trouble, it disappears. It even stopped for several months when her daughter was married, as the excitement of the wedding and the meeting of many old-time friends kept her pre-occupied. When she returned to her habitual life, the jerking reappeared; author mentions no treatment.

Case VI. *5. Male, 26 years of age, comic singer. One day on the stage he felt a painful spasm in the left arm. At home he rubbed his arm without relief; he was much worried and forced to give up his profession. When he was 29 years old, he no-ticed, for the first time, a spasm of the muscles of the neck; the head was suddenly jerked to the right and the face directed upward. At first this movement was rare, but gradually became frequent; movement could be stopped by placing right hand on chin. The patient was never hysterical, has never hear neutrathenic no symbilis; no alcohol, and has been neurasthenic; no syphilis; no alcohol, and has never been seriously ill. His mother, however, was a diabetic and a brother died of meningitis; a neurotic heredity is not doubtful. No treatment mentioned.

Case VII. *6. Male, mechanic. When 34 years of age, he suffered frequently from vertigo, disappeared at the end of the year, but he still suf-fered from frontal headache and tinnitus aurum. A spasmodic movement of the head, which he first noticed when he was about 35 years of age, a year after onset, gave him much anxiety; these movements occurred at short intervals; the head bent over toward the right and backward. It was easily prevented in the beginning but, later, it could only be controlled with the assistance of one or both hands. Sometimes the patient felt as if pressure were brought to bear on the left half of the face, forcing it toward the right, backward and upward. When the patient was accosted or his attention di-